

RESPONSE TO PUBLIC COMMENTS
on
TENTATIVE DETERMINATIONS TO EXTEND THE VARIANCES
FOR COMBINED SEWER OVERFLOW DISCHARGES
to
ALEWIFE BROOK/UPPER MYSTIC RIVER
and
LOWER CHARLES RIVER/CHARLES BASIN

August 2010

GENERAL COMMENTS

Comment:

Since the definition of a “typical year” was calculated, weather patterns have changed. For example, so far this year, we have had five storms larger than the “typical year” storm. Over the next three years, MWRA should modify the definition of a “typical year”, and as part of that, develop definitions of 3-month, 6-month, 1-year, 2-year, 5-year, and 10-year storms. [Roger Frymire] [Margaret Van Deusen, Charles River Watershed Association] [Patrick Herron, Mystic River Watershed Association]

MassDEP Response:

This is becoming a national concern due to changing precipitation patterns over time. MassDEP is currently evaluating issues related to climate change. How the “typical year” was calculated, as well as all of the other assumptions related to the CSO Long Term Control Plan (LTCP or “Control Plan”), will be revisited when the implementation period is over and the CSO projects are complete (2015-2020).

Comment:

MWRA currently samples regardless of weather conditions and it is difficult to see from the data what is happening when the SSOs and CSOs are discharging. Commenters proposed that half of the current sampling remain the same and the other half of the sampling effort be used to sample during wet weather events upstream, downstream, and in the immediate vicinity of discharges. [Roger Frymire] [Margaret Van Deusen]

MassDEP Response:

The first Mystic/Alewife Variance required MWRA to sample stormwater during storms. Mobilizing to sample during sudden storms proved difficult. There are some data available from this effort but the results varied dramatically, and in many cases reflected the presence of illicit connections to the stormdrain system, which rendered the information of limited value in impacting the CSO Control Plan recommendations. The United States Geological Survey (USGS) led a \$2 million study of stormwater in the Lower Charles River Basin, which yielded considerable information on stormwater quality in that watershed. Additional wet weather sampling will be required after the CSO Control Plan is implemented, to validate the assumptions made in the CSO Facilities Plan, to document that the targeted level of CSO control has been achieved, and to render data to assist in making water quality standard determinations. This would be a part of MWRA’s final sampling plan and the data would be compared

to model predictions. In addition, the MS4 (Municipal Separate Storm Sewer System) permit requires both wet and dry weather sampling.

Comment:

When the Boston Harbor Cleanup CSO Facilities Plan was being developed, sampling was conducted to characterize CSO flows. In about one third of the samples, the storms weren't large enough to make the CSOs overflow so sampling did not accurately depict the content of discharges. MWRA also averaged all of the data and made decisions on which to close based on volumes. MWRA should develop a detailed sampling plan that seeks to answer the question of the relative contribution of pollution from CSOs, SSOs, and stormwater. As mentioned in the previous comment, this sampling could include a reassignment of the MWRA receiving water sampling to focus on wet weather sampling at CSOs. The monitoring plan should be made available for public review and comment. [Roger Frymire] [Patrick Herron]

MassDEP Response:

MassDEP agree with R. Frymire's comments related to the older CSO sampling data. However, since current projects may change the composition of CSO discharges, any changes to sampling and data analysis should occur after these projects are completed (2015-2020). MWRA's final CSO sampling and evaluation plan will be open for public review and comment.

MassDEP is working with EPA and communities in the watersheds to improve water quality issues with CSO abatement projects, illegal stormdrain connection removal projects, and SSO abatement projects (i.e. inflow/infiltration projects and enforcement).

Comments:

There should be better public notification when the SSO on Bradeen St. in Roslindale discharges. This SSO discharges in greater than 2-year storms and releases large volumes of sewage that ends up in the Charles River. There should be public notification when two SSOs on the Mystic River in Medford (that activate on average every 10 months) begin and cease discharging. These two SSOs should be looked at more closely and perhaps be reclassified as CSOs. [Roger Frymire]

Cambridge should be required to report within 24 hours of discharges of their CSOs and that both Cambridge and MWRA report volumes in their CSO notifications. [Margaret Van Deusen]

There should be a notification program in place for SSO discharges within the Mystic River watershed. [Patrick Herron]

MassDEP Response:

Though SSOs may mimic CSOs when they discharge, they are designed differently and thus cannot be simply reclassified as CSOs. They are also not authorized by NPDES discharge permits. As a result, most specific requirements for communities with SSOs have been incorporated into enforcement orders. MassDEP and EPA will be developing strategies for incorporating requirements to address SSOs in NPDES permits. EPA is also, on a national basis, gathering information on how best to regulate SSO discharges. MassDEP will consider expanded public notification requirements as part of any SSO

enforcement actions. It is important to note that it is difficult to report CSO volumes from non-facility CSOs unless there is a meter at the discharge.

Comment:

The SSO Reporting Forms that are submitted to EPA and MassDEP only estimate to within an order of magnitude of flow. Minimum reporting requirements on the MassDEP SSO form do not address what impacts those volumes are having. For example, there is a check box simply checking the box that says "greater than one million gallons". [Roger Frymire] [Patrick Herron]

MassDEP Response:

Though SSO discharge notification is part of NPDES permits and MassDEP regulations, and not the Variances, MassDEP will revise its SSO Reporting Form to require more accurate reporting of SSO volumes.

Comment:

MWRA, in their Annual Inflow/Infiltration (I/I) Report, should provide I/I numbers for the three largest storms for each meter or for each town to figure out where the largest problems are and what to tackle first. Commenters would also like to see I/I information based on actual data from single storms. By annualizing all of the data, it is very difficult to prioritize efforts towards solving problems. Also, the I/I Program should have a self-assessment to determine whether the investments being made are having an impact. [Roger Frymire] [Patrick Herron]

MassDEP Response:

Though I/I is not a part of these Variances, MassDEP will receive MWRA's Annual I/I Report soon. MassDEP will carefully review the report and ask MWRA to examine I/I data as it relates to specific storms during the reporting period.

Comment:

We need to understand both quick and intense storms as well as longer duration but less intense storms. These two types of storms have different impacts on the sewer system. [Steve Kaiser]

MassDEP Response:

Each year, MWRA, Somerville, Cambridge, Chelsea, and the Boston Water & Sewer Commission are required under the NPDES permit to quantify CSO discharges for each CSO event, as well as associated rainfall. These data can be reviewed for any storm, and thus information on the response of the combined sewer system to specific storm events is available through analysis of this data.

Comment:

Contract 12 Cambridge drainage project should never have been developed. Sewer separation and mitigation should have been planned for this area instead. The problem with this project is that Cambridge is taking a local drainage problem and transferring it to Alewife Brook. This increases the flooding levels in Alewife Brook that then increases the inflow through the remaining CSO structures.

The commenter is also concerned that the statement on page 13, item #2 under “Future Actions” of the Alewife fact sheet which states that “MWRA and the City of Cambridge shall implement all elements of the Control Plan...” will lock in Contract 12. **[Steve Kaiser]**

MassDEP Response:

Contract 12 has been through an extensive permitting process, including appeals to MassDEP and to Superior Court. The outcome of this process confirms that the project is designed in accordance with the Wetlands Protection Act, and other applicable requirements. Peak runoff rates and flooding impacts were considered in the permitting process.

Comment:

Alewife Brook backflows into the City of Cambridge CSOs and the subsequent surcharging results in sewer backups at the Alewife Brook pump station. **[Steve Kaiser]**

MassDEP Response:

Cambridge’s NPDES permit has a provision in it that requires the City of Cambridge to evaluate the potential for a backflow condition to occur.

Comment:

The garbage in Alewife Brook should be cleaned up. Stormwater problems should be addressed since we know that it contains a lot of bacteria. It is not acceptable to have high bacteria measurements after these CSO projects are completed. **[Robin Johnson]**

MassDEP Response:

Stormwater has been identified in the MWRA CSO Control Plan and by MassDEP and EPA as a significant source of pollution in the Mystic River watershed. MassDEP and EPA are working on reducing illegal wastewater connections to the stormdrain system through coordinated enforcement actions. Though progress is being made, there is still a lot to be done. The age and condition of the sewer and drainage systems in the watershed have complicated this work, but the work is progressing. Water quality will improve with these enforcement actions and the implementation of provisions in MS4 permit.

Comment

The Variances should include requirements for the use of alternatives such as providing rain barrels to residents to reduce peak flow, disconnecting roof drain connections, restricting new impervious surfaces, low impact development and green infrastructure demonstration projects. MassDEP should look at Philadelphia’s innovative CSO Control Plan. **[Robin Johnson] [Margaret Van Deusen]**

MassDEP Response:

MassDEP promotes the use of rain barrels and works with cities and towns to make them available to homeowners at a reduced cost. Contact your municipality to see if they are available in your area. For more information on rain barrel retailers or how to build and install your own, go to:

<http://www.mass.gov/dep/water/resources/rainbarl.htm>. Philadelphia's CSO Control Plan is indeed innovative and perhaps the cities and towns could adopt some of the ideas in this plan.

Comments:

We should be driving for a B designation in the Charles River and a B_{CSO} designation would be a complete failure. [Margaret Van Deusen]

MyRWA's long-term goal is to make the waters of the Mystic River Watershed swimmable and fishable. The goal is to see an assignment of a Class B water quality classification in Alewife Brook and this depends on high quality data that demonstrate that the assignment of this classification is feasible. [Patrick Herron]

MassDEP Response:

Under the present water quality standards and CSO policy, no CSO discharges are authorized to a Class A or B receiving water. As such, unless all CSO discharges are eliminated under all conditions, the B standard is not met. At this time, no feasible plan to completely eliminate CSO discharges under all conditions has been identified. MassDEP reviews its water quality standards, subject to EPA approval, every three years, and both the standards and the classifications for the CSO-impacted receiving waters are reviewed. The evaluation period to follow the implementation of the CSO Control Plan will be extremely important in documenting water quality conditions, CSO impacts, and appropriate receiving water standards.

Comment:

While not a part of the Variance Determination, the Charles River Valley South Charles Relief Sewer Gates Control and Interceptor Connection Project should move forward and not be deleted from Schedule Seven. [Margaret Van Deusen]

MassDEP Response:

MWRA has asserted that there are no feasible controls on these major sewer lines that can be implemented to further reduce CSO discharges without creating an unacceptable risk of sewer system backups and street flooding. This finding remains under review by MassDEP and EPA.

Comment:

Section C.ii. of the Alewife Brook/Upper Mystic River Variance requires the Permittees to maintain signs at John Waldo Park and other public access locations identified by MassDEP for the purpose of advising the public of CSO discharges and potential public health impacts. A request to modify Section C.ii. of the Variance would require the Permittees to consult with the Town of Arlington to determine an appropriate location for the placement of additional signs. [Brian Sullivan, Town of Arlington]

MassDEP Response:

The language of Variance condition will remain as it is written, and the MassDEP will coordinate and consult with the Town on additional signage at locations such as Bicentennial Park in Arlington, the

intersection of Massachusetts Avenue and Route 16, the Lafayette Street boat launch, the confluence of the Alewife Brook and Mystic River, and on the DCR bicycle path near Sunnyside Avenue.

Comment:

Section C.iii. of the Alewife Brook/Upper Mystic River Variance requires the Permittees to issue an annual joint press release to Variance recipients. The commenter requests this report on a semi-annual rather than annual basis and that it provide more information. [Brian Sullivan]

MassDEP Response:

The issuance of the joint press release to watershed advocacy groups, local health agents, and property owners subject to flooding in the Alewife Brook watershed and newspapers presents information on CSOs, their location in the Alewife Brook/Upper Mystic watersheds and potential health risks posed by exposure to CSO events. During the next three years, many of the rehabilitation measures necessary to achieve CSO abatement will have been completed. Rather than increasing the press release frequency to twice per year, MassDEP suggests accessing MWRA'S CSO website in order to receive the most recent information and updates in the program to date. That link is: <http://www.mwra.com/03sewer/html/sewerscso.htm>. Additional information can be obtained by visiting the Cities of Cambridge's and Somerville's websites at <http://www.cambridge.ma.gov/the work/> and www.ci.somerville.ma.us. Updated information on water quality in the Alewife Brook watershed can be found at the Mystic River Watershed Association (MyRWA) website, www.mysticriver.org. The Variance condition will remain as written.

Comment:

There should be a requirement to establish a CSO Discharge Clean-up Fund in the Alewife Brook/Upper Mystic River Variance. [Brian Sullivan]

MassDEP Response:

It is not within MassDEP's authority to require this type of fund.

Comment:

Section C.iv. of the Alewife Brook/Upper Mystic River Variance requires Permittees to provide e-mail notification with 24 hours to the Town's Public Health Director. This condition is inadequate to provide sufficient notice to abutters and nearby property owners. Real time notification is required. [Brian Sullivan]

MassDEP Response:

The notification to property owners should be coordinated and initiated at the local level. As correctly characterized in the comment, the current system requires notification within 24 hours to local health agents and the Mystic River Watershed Association. This notification system satisfies the requirements of MassDEP. The MassDEP recommends that the local health departments coordinate with affected property owners to establish the linkages necessary to relay notifications, in real time at the local level. The Arlington Health Director and the Mystic River Watershed Association, along with Cambridge and

Somerville must determine if real time notification is viable, and if so, easily and cost-effectively implementable.

Comment:

Solids and floatable controls should be implemented immediately in the Alewife Brook watershed. [Brian Sullivan]

MassDEP Response:

Over the next three years, MWRA is required under federal court order to minimize solids, and implement floatables control in the Charles and Alewife Brook/Upper Mystic River watersheds. This includes contract work for the design and construction of deflection separators, screens, and underflow baffles.

Comment:

Variances should not be extended. Enforce environmental regulations and abate the combined sewer overflows to the Alewife Brook. [Jeffrey A. Carver] [Thomas W. Lincoln] [Joseph Kesselman]

MassDEP Response:

In 2006, an agreement among the EPA, MassDEP and MWRA on a revised scope and schedule for the MWRA CSO Control Plan was reached. The result was the issuance of a Federal Court Order, on April 27, 2006 with an accompanying schedule for the abatement of combined sewer overflows by 2020. The intent was to have the CSO Control Plan complete prior to making final decisions on water quality standards, Class B or Class B_{CSO} for both the Alewife Brook/Upper Mystic River and the Charles River Basin; and whether additional work would be necessary to provide further benefit for those receiving waters. Under the agreement, MassDEP would issue to MWRA a Water Quality Variance in order to allow the MWRA to proceed with an approved capital improvements program.

When all work has been completed, an assessment will be performed on performance within each basin and a final decision will be made regarding the water quality standards. To date, the MWRA has spent a total of \$710 million throughout the collection system. The Alewife Brook watershed will receive \$117 million in required construction improvements over the life of this Water Quality Variance.

Comment:

Since Cambridge delayed progress, they should accept the additional cost for completing the project on time. Cambridge shouldn't be allowed to continue to transfer its public health costs to Arlington and other downstream communities. [Joseph Kesselman]

MassDEP Response:

Some delays incurred by MWRA and the City were not under their control. The current court schedule includes dates for commencement and completion for all CSO abatement projects in the Alewife Brook watershed.

Comments:

CSO Variances should not be extended because they postpone the CSO clean-up effort. Commenter had requested summer 2009 data and no one returned her telephone calls. Commenter is also upset that the public hearing was scheduled mid-day in downtown Boston with no advance notice. Abutters should have received notification of the public hearing. [Anne Thompson]

MassDEP Response:

See response above. Projects must proceed in accordance with the federal court schedule. A summary of the 2009 data collection will be provided to Ms. Thompson by email once the data are validated.

Comments:

The MWRA Advisory Board supports the extension of the Variances but MassDEP must ensure that the CSO Control Plan remains cost effective and meets the standards of affordability. [Joe Favaloro]

The Wastewater Advisory Committee supports the extension of the Variances provided that that MWRA continues to meet the requirements of the Court Order regarding the scope and schedule of the CSO Control Plan. [Stephen Greene]

MassDEP Response:

In approving the MWRA CSO Control Plan, MassDEP considered cost-effectiveness and affordability. These will continue to be two important criteria for any MassDEP determinations on water quality standards classifications and associated CSO control requirements.

Comment:

Delay in implementing the CSO Control Plan in the Alewife Brook watershed has resulted in significant resource degradation. This should be quantified and mitigation for this proposed. [David Stoff]

MassDEP Response:

MassDEP acknowledges that significant delays related to appeals of wetland permits for CSO abatement projects has occurred for Alewife Brook CSO projects, and this has delayed the substantial CSO abatement benefits to be achieved by the court-ordered projects. The current court schedule establishes a timeframe for completion of these projects, and the projects are now proceeding in accordance with the Federal Court schedule.

Comment:

Floatables control projects are also unjustifiably behind the original court schedule. CSO permittees should be required to implement controls and cleanup. [David Stoff]

MassDEP Response:

MWRA is required under the Federal Court Order to implement floatables control in both the Charles and Alewife Brook/Upper Mystic River watersheds at CSO discharge locations. Floatables control at outfalls CAM002, CAM401B, and CAM001 are currently under construction and are scheduled to be completed by October 31, 2010. Other floatables control structures are more complex and will be completed in accordance with the Federal Court schedule.

Comment:

CSOs should be clearly identified with signs. Additional signs should also advise users about the health risks posed by CSO discharges. [David Stoff]

MassDEP Response:

The NPDES permit requires signs to be in place at all CSO discharges. MassDEP will inspect CSO locations to confirm that signs are visible. MassDEP will confer with the Town of Arlington and the Mystic River Watershed Association to determine appropriate locations for CSO advisory warnings.

Comment:

The City of Somerville should be required to separate sewers in the Tannery Brook watershed, to promote a healthy Alewife Brook. [David Stoff]

MassDEP Response:

The approved MWRA CSO Control Plan includes a cost-effective measure to enlarge the hydraulic connection of the Tannery Brook combined sewer to the MWRA interceptor that will substantially mitigate CSO activations and volumes. The Sewer Assessment Report done by the City of Somerville indicated that complete separation of the Tannery Brook combined sewer was estimated to cost \$22 to \$33 million dollars. Upon review of the evaluation report to follow implementation of the complete MWRA CSO Control Plan, MassDEP and EPA will determine if further sewer separation, or other CSO work, will be required.

Comment:

It is important to put these Variances into the context of the March 2006 agreement between MassDEP and EPA, the decisions by MassDEP and EPA to reissue the Variances sequentially through the period of the CSO Long Term Control Plan implementation and verification (to 2020), and from these, the plan to reevaluate long term water quality determinations for the Lower Charles River and Alewife Brook/Upper Mystic River based on updated information at that time. MWRA questions the value and the appropriateness of additional conditions in the Variances at this time that may be used to open reconsideration of the Control Plan or to otherwise drive CSO regulatory conclusions or decisions in the short term. Information will be available for MassDEP to complete a reevaluation and make decisions after the last extensions of the Variances. [Mike Hornbrook, MWRA]

MassDEP Response:

MassDEP concurs with this comment.

